

APPENDIX C.

Compilation of LC50/LC10 Standardized estimates of Lethality Threshold Adjustment Factors (LTAFs)

Species	Age	Temp.	DO	pH	LC50/LC10 LTAFs	Source	Exposure-Response Regression Equations
Fathead Minnow	8 weeks	25 C	80% sat.	7.8	1.25	Broderius and Smith (1979)	Probit (% mortality) = 16.75 + 13.01(log mgCN/L); 96-hr exposure
Rainbow Trout	22 weeks	10 C	80% sat.	-7.95	1.14	Broderius and Smith (1979)	Probit (% mortality) = 33.63 + 23.04(log mgCN/L); 96-hr exposure
Fathead Minnow	swim-up fry	15 C	6.38 mg/L	7.86	1.41	Smith et al. (1978)	Probit (% mortality) = -12.743 + 8.507(log ugHCN/L); 96-hr exposure
Fathead Minnow	swim-up fry	20 C	6.14 mg/L	7.89	1.68	Smith et al. (1978)	Probit (% mortality) = - 6.419 + 5.721(log ugHCN/L); 96-hr exposure
Fathead Minnow	swim-up fry	24.6 C	3.77 mg/L	7.84	1.46	Smith et al. (1978)	Probit (% mortality) = - 9.989 + 7.840(log ugHCN/L); 96-hr exposure
Fathead Minnow	swim-up fry	24.7 C	5.14 mg/L	7.96	1.58	Smith et al. (1978)	Probit (% mortality) = - 8.170 + 6.471(log ugHCN/L); 96-hr exposure
Fathead Minnow	swim-up fry	24.9 C	6.17 mg/L	8.02	1.6	Smith et al. (1978)	Probit (% mortality) = - 7.971 + 6.314(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	15 C	6.07 mg/L	7.86	1.21	Smith et al. (1978)	Probit (% mortality) = -27.167 + 15.455(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	20 C	3.58 mg/L	7.7	1.58	Smith et al. (1978)	Probit (% mortality) = - 8.512 + 6.417(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	19.8 C	4.68 mg/L	7.8	1.21	Smith et al. (1978)	Probit (% mortality) = -24.538 + 15.415(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	20 C	5.20 mg/L	7.78	1.27	Smith et al. (1978)	Probit (% mortality) = -21.086 + 12.446(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	20 C	6.07 mg/L	7.91	1.28	Smith et al. (1978)	Probit (% mortality) = -20.485 + 11.933(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	20 C	7.13 mg/L	7.9	1.2	Smith et al. (1978)	Probit (% mortality) = -28.818 + 15.978(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	24.8 C	3.58 mg/L	7.75	1.29	Smith et al. (1978)	Probit (% mortality) = -18.494 + 11.592(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	25 C	5.08 mg/L	7.83	1.24	Smith et al. (1978)	Probit (% mortality) = -23.502 + 13.722(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	25.1 C	6.13 mg/L	7.98	1.28	Smith et al. (1978)	Probit (% mortality) = -20.032 + 11.868(log ugHCN/L); 96-hr exposure
Fathead Minnow	wild-stock juveniles	25.2 C	7.04 mg/L	7.96	1.21	Smith et al. (1978)	Probit (% mortality) = -27.069 + 15.415(log ugHCN/L); 96-hr exposure
Bluegill	wild-stock juveniles	15 C	6.07 mg/L	7.83	1.12	Smith et al. (1978)	Probit (% mortality) = -44.847 + 25.692(log ugHCN/L); 96-hr exposure
Bluegill	wild-stock juveniles	15.1 C	7.03 mg/L	7.92	1.3	Smith et al. (1978)	Probit (% mortality) = -15.982 + 11.190(log ugHCN/L); 96-hr exposure
Bluegill	wild-stock juveniles	20 C	6.06 mg/L	7.86	1.18	Smith et al. (1978)	Probit (% mortality) = -31.160 + 17.797(log ugHCN/L); 96-hr exposure
Bluegill	wild-stock juveniles	25.1 C	3.48 mg/L	7.71	1.32	Smith et al. (1978)	Probit (% mortality) = -16.173 + 10.593(log ugHCN/L); 96-hr exposure
Bluegill	wild-stock juveniles	25 C	5.05 mg/L	7.78	1.25	Smith et al. (1978)	Probit (% mortality) = -21.671 + 13.003(log ugHCN/L); 96-hr exposure
Bluegill	wild-stock juveniles	24.9 C	6.17 mg/L	7.92	1.28	Smith et al. (1978)	Probit (% mortality) = -19.485 + 11.766(log ugHCN/L); 96-hr exposure
Bluegill	wild-stock juveniles	24.9 C	6.90 mg/L	7.86	1.19	Smith et al. (1978)	Probit (% mortality) = -30.955 + 17.160(log ugHCN/L); 96-hr exposure
Bluegill	swim-up fry	20 C	5.99 mg/L	7.89	2.7	Smith et al. (1978)	Probit (% mortality) = - 2.618 + 2.973(log ugHCN/L); 96-hr exposure
Bluegill	swim-up fry	24.9 C	5.08 mg/L	7.8	2.46	Smith et al. (1978)	Probit (% mortality) = - 2.756 + 3.279(log ugHCN/L); 96-hr exposure
Bluegill	swim-up fry	24.9 C	6.01 mg/L	7.93	1.47	Smith et al. (1978)	Probit (% mortality) = -13.580 + 7.611(log ugHCN/L); 96-hr exposure
Bluegill	swim-up fry	24.8 C	6.81 mg/L	7.9	1.72	Smith et al. (1978)	Probit (% mortality) = - 8.222 + 5.433(log ugHCN/L); 96-hr exposure
Yellow Perch	wild-stock juveniles	15 C	6.10 mg/L	7.82	1.29	Smith et al. (1978)	Probit (% mortality) = - 17.790 + 11.650(log ugHCN/L); 96-hr exposure
Yellow Perch	wild-stock juveniles	18 C	6.05 mg/L	7.83	1.19	Smith et al. (1978)	Probit (% mortality) = - 28.964 + 17.215(log ugHCN/L); 96-hr exposure
Yellow Perch	wild-stock juveniles	21.4 C	3.56 mg/L	7.69	1.25	Smith et al. (1978)	Probit (% mortality) = - 19.935 + 13.266(log ugHCN/L); 96-hr exposure
Yellow Perch	wild-stock juveniles	21 C	5.09 mg/L	7.74	1.27	Smith et al. (1978)	Probit (% mortality) = - 19.206 + 12.214(log ugHCN/L); 96-hr exposure
Yellow Perch	wild-stock juveniles	21 C	6.13 mg/L	7.82	1.18	Smith et al. (1978)	Probit (% mortality) = -31.329 + 18.082(log ugHCN/L); 96-hr exposure
Yellow Perch	wild-stock juveniles	21.1 C	7.10 mg/L	7.82	1.27	Smith et al. (1978)	Probit (% mortality) = -19.768 + 12.172(log ugHCN/L); 96-hr exposure

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Species	Age	Temp.	DO	pH	LC50/LC10 LTAFs	Source	Exposure-Response Regression Equations
Brook Trout	sac fry	10 C	3.50 mg/L	7.68	2.32	Smith et al. (1978)	Probit (% mortality) = - 2.114 + 3.502(log ugHCN/L);96-hr exposure
Brook Trout	sac fry	10 C	6.03 mg/L	7.78	1.65	Smith et al. (1978)	Probit (% mortality) = - 9.989 + 5.891(log ugHCN/L);96-hr exposure
Brook Trout	sac fry	10 C	7.96 mg/L	7.84	2.08	Smith et al. (1978)	Probit (% mortality) = - 5.939 + 4.030(log ugHCN/L);96-hr exposure
Brook Trout	sac fry	13 C	6.00 mg/L	7.78	2.31	Smith et al. (1978)	Probit (% mortality) = - 3.478 + 3.518(log ugHCN/L);96-hr exposure
Brook Trout	swim-up fry	7 C	6.04 mg/L	7.83	1.55	Smith et al. (1978)	Probit (% mortality) = - 7.954 + 6.695(log ugHCN/L);96-hr exposure
Brook Trout	swim-up fry	10 C	3.90 mg/L	7.73	1.39	Smith et al. (1978)	Probit (% mortality) = - 10.709 + 8.996(log ugHCN/L);96-hr exposure
Brook Trout	swim-up fry	10 C	6.04 mg/L	7.8	1.51	Smith et al. (1978)	Probit (% mortality) = - 8.898 + 7.137(log ugHCN/L);96-hr exposure
Brook Trout	swim-up fry	10 C	8.02 mg/L	7.85	1.28	Smith et al. (1978)	Probit (% mortality) = - 19.180 + 11.944(log ugHCN/L);96-hr exposure
Brook Trout	swim-up fry	13 C	6.04 mg/L	7.79	1.29	Smith et al. (1978)	Probit (% mortality) = - 17.914 + 11.663(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	6.9 C	6.01 mg/L	7.84	1.13	Smith et al. (1978)	Probit (% mortality) = - 41.017 + 24.507(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	6.8 C	9.26 mg/L	8.06	1.11	Smith et al. (1978)	Probit (% mortality) = - 50.061 + 28.585(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	10 C	4.02 mg/L	7.74	1.16	Smith et al. (1978)	Probit (% mortality) = - 31.995 + 19.613(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	10 C	6.00 mg/L	7.82	1.09	Smith et al. (1978)	Probit (% mortality) = - 59.000 + 32.883(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	10 C	8.06 mg/L	7.9	1.26	Smith et al. (1978)	Probit (% mortality) = - 19.910 + 12.634(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	10 C	8.82 mg/L	8.08	1.16	Smith et al. (1978)	Probit (% mortality) = - 35.896+ 20.435(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	13 C	6.04 mg/L	7.84	1.13	Smith et al. (1978)	Probit (% mortality) = - 42.817+ 23.986(log ugHCN/L);96-hr exposure
Fathead Minnow	wild-stock juveniles	10 C	6.09 mg/L	7.82	1.38	Smith et al. (1978)	Probit (% mortality) = - 15.532+ 9.259(log ugHCN/L);96-hr exposure
Fathead Minnow	wild-stock juveniles	15 C	6.02 mg/L	7.88	1.34	Smith et al. (1978)	Probit (% mortality) = - 17.799+ 9.995(log ugHCN/L);96-hr exposure
Fathead Minnow	wild-stock juveniles	20 C	6.16 mg/L	8.02	1.2	Smith et al. (1978)	Probit (% mortality) = - 31.483+ 16.282(log ugHCN/L);96-hr exposure
Fathead Minnow	wild-stock juveniles	25 C	5.82 mg/L	7.99	1.19	Smith et al. (1978)	Probit (% mortality) = - 32.804+ 17.160(log ugHCN/L);96-hr exposure
Fathead Minnow	wild-stock juveniles	30 C	5.66 mg/L	8.15	1.28	Smith et al. (1978)	Probit (% mortality) = - 21.242+ 11.957(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	4 C	7.19 mg/L	7.92	1.16	Smith et al. (1978)	Probit (% mortality) = - 28.849+ 19.626(log ugHCN/L);96-hr exposure
Brook Trout	hatchery juveniles	15 C	7.24 mg/L	8.02	1.17	Smith et al. (1978)	Probit (% mortality) = - 32.474+ 18.840(log ugHCN/L);96-hr exposure
Fathead Minnow	eggs	15.2 C	6.36 mg/L	7.86	2.11	Smith et al. (1978)	Probit (% mortality) = - 5.033 + 3.940 (log ugHCN/L);96-hr exposure
Fathead Minnow	eggs	24.9 C	3.51 mg/L	7.72	1.93	Smith et al. (1978)	Probit (% mortality) = - 5.358 + 4.494 (log ugHCN/L);96-hr exposure
Fathead Minnow	eggs	24.8 C	4.46 mg/L	7.95	1.58	Smith et al. (1978)	Probit (% mortality) = - 8.488 + 6.475 (log ugHCN/L);96-hr exposure
Fathead Minnow	eggs	25 C	5.52 mg/L	7.9	1.81	Smith et al. (1978)	Probit (% mortality) = - 6.262 + 4.973 (log ugHCN/L);96-hr exposure
Fathead Minnow	eggs	25 C	6.34 mg/L	8	2.02	Smith et al. (1978)	Probit (% mortality) = - 4.612 + 4.194 (log ugHCN/L);96-hr exposure